REMARKS

Claim 1 has been amended to restrict the amount of rhenium to the preferred range of 0.2 to 0.9 mmole/kg, relative to the weight of the catalyst and 0.0001 to 0.0012 mmole/m^2, relative to the surface area of the carrier. Support for this amendment can be found in claims 6 and 12 and in Example 1, Table I of the application. In addition, Claim 1 has been amended to include the incorporation of a tungsten copromoter in an amount of 0.1 to 0.75 mmole/kg, relative to the weight of the catalyst. Support for this amendment can be found in claim 11, in the specification at page 10, lines 21 to 24, and in Example 1, Table I of the application. Accordingly, claims 5 to 10 have now also been cancelled and claim 11 has been amended as shown.

Applicants submit that the preferred ranges now shown have not been taught or suggested in the prior art, and that the results of catalysts containing rhenium and tungsten at the levels claimed are commensurate in scope as to the invention claimed and possess unexpected and unobvious features. This feature relates to the surprising discovery that the catalysts in the process of the present invention, while having a lower initial selectivity than achievable by employing more rhenium, retain their selectivity better during use, such that after a certain period of use they outperform the catalysts which comprise more rhenium and accordingly have a longer service life. Accordingly, allowance of the claims as amended is requested.

As for the present claims, in referring to Example 1 and Table I (at page 23), Catalysts A, B, C and D are according to the newly amended claims, and Catalysts E and F are outside the ranges claimed. As shown in Example 2 and Table 2 (at page 27), Catalyst A and B according to the invention best retain their selectivity during use, while Catalyst F could not even be operated properly after a cumulative ethylene oxide production of 0.81 kT/m^3. As for Catalyst E, it does not contain either rhenium or tungsten. As shown in Example 3 and Table III (at page 29), Catalysts B, C and D according to the invention claimed was tested at other conditions and retained their activity and selectivity over a long period of time, which was completely unexpected and demonstrates the non-obvious nature of the invention.

As for the prior art, the Examiner points to Example 5-2 in Lauritzen, US 4,808,738 as showing a catalyst which teaches the claimed invention. However, Example 5-2 does <u>not</u> include <u>tungsten</u>, as now claimed in independent Claim 1. It is also important to note that Lauritzen, at Table 7 shows that the combined level of rhenium and tungsten <u>must be at least 2</u>

mmole/kg (see examples 11, 17, 24 and 26). Whereas in the presently claimed invention, the maximum amount of rhenium and tungsten is at most 1.65 mmole/kg. As for Shell WO 95/17957, Illustrative Embodiment 3 contains 1.5 mmole of rhenium per kg catalyst, which is outside the range now claimed.

In the March 2nd decision of the Board of Patent Appeals and Interferences, the Board discussed the reasons why they considered that Lauritzen '738 was a good reference. See page 13 of the Decision, which is quoted in part below, with comments in bold/highlighting which shows how the amended claims are changed from those considered earlier by the Board of Appeals:

> "First, Lauritzen '738 directly satisfies the rhenium composition requirements of claim 1 (FF 1-7). The claims do not include any element which distinguishes the catalyst of Example 5-2 referred to by the Examiner, which falls within the scope of claim 1 ***[no longer true since the claims require tungsten not included in Example 5-2]***. Also, the unexpected results for Catalyst A and B include the copromoter tungsten at 0.35 mmole/kg while Catalyst F has 0.7 mmole/kg of tungsten and Claim 1 makes no reference to the inclusion of copromoters and therefore encompasses all copromoters, not just tungsten ***[no longer true since Claim 1 requires tungsten and Catalyst F is outside the amended claimed range for rhenium]***. Therefore, the unexpected results are not commensurate in scope with the claim ***[no longer true since the claims ARE commensurate with the unexpected results] …***
>
> Second, the comparison was not made with the closest prior art, the rhenium catalyst of Lauritzen '738. Appellants have not performed the comparison with Example 5-2 of Lauritzen '738, which is closer prior art than Catalyst F because Example 5-2 uses an amount of rhenium which falls within the scope of the claims, while Catalyst F does not. Claim 1 also does not require copromoters such as the tungsten found in Catalyst F, and Example 5-2 does not include the sulfur copromoter ***[no longer true since amended Claim 1 does require the presence of tungsten]***. …"

Accordingly, the unexpected results shown and the claims as now amended are commensurate in scope with each other, contrary to prior statements made by the Board of Appeals as to the prior claimed invention. If Claim 1 as now amended were before the Board, they would not have been able to make the above noted conclusions. The same holds true here – Applicants assert that the claims as amended possess unexpected results and the claims as now amended are also commensurate in scope with those results and show that the prior art does not teach or suggest such limitations as now claimed nor do they teach such unexpected results.

Should the Examiner find any impediment to the prompt allowance of the claims that could be corrected by a telephone interview with the undersigned, the Examiner is requested to initiate such an interview.

Respectfully submitted,

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